



The Rhode Island HEALTH Web Query System

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The Rhode Island HEALTH Web Query System is a new resource available on the Department of Health website that allows health professionals, community agencies, Department personnel, and the general public to produce aggregated health data for the state to their own specifications. This system provides health professionals and community organizations with valuable information with which to improve the health of Rhode Islanders through data-driven programs and policies. The RI HEALTH Web Query System is one of the Department of Health's responses to the ever-increasing public expectation for reliable and trustworthy online health data and information. The system is publicly accessible and requires no sign-in or registration.

The HEALTH Web Query System currently contains seven years (1998-2004) of data from Rhode Island's Behavioral Risk Factor Surveillance System (RIBRFSS) covering over twenty topics (Table 1). The BRFSS is a national telephone survey of randomly selected non-institutionalized adults (ages 18 and older). The BRFSS monitors the prevalence of behavioral risks that contribute to the leading causes of disease and death among adults in the United States. It is administered in all 50

states and four U.S. territories with funding and methodological specifications provided by the Centers for Disease Control and Prevention (CDC).¹

Within the twenty topics, the system includes one hundred variables and allows users to obtain up-to-date information, view time trends, and combine years in order to obtain stable estimates. The system became operational in September 2004 on the Rhode Island Department of Health intranet and in September 2005 over the Internet. The project will expand access to other databases in phases, beginning with those required for monitoring the Healthy Rhode Islanders 2010 Leading Health Indicators,² then moving to other databases that reside in the Rhode Island Department of Health, and finally to certain external databases. In the next year the system will add Youth Risk Behavior Survey data,³ death certificate data, and state population data from the 2000 Census and subsequent population estimates and projections.

How to Use the System

Rhode Island's HEALTH Web Query System features a simple step-by-step process to request data for a single year, for multiple years in sequence, or for multiple years combined, to select independent and dependent variables, and, if desired, to subset the output by demographic or geographical variables. Users can also select whether to have estimates of the population at risk displayed with the prevalence rate data. After submitting a request the user is shown a confirmation screen to review the selections that have been made prior to processing of the request. Results are displayed in tabular form and, if selected, graphical form. Users can download these results in one of three formats: Excel format, maintaining all title and footnote information; Comma Separated Value format; and Rich Text format, which can be opened by word processing programs or copied and pasted directly into a PowerPoint presentation.

System Applications

This versatile system can be used to identify target populations for interventions, evaluate programs, track Healthy Rhode Islander 2010 objectives among sub-populations, and provide estimates of populations at risk and of risk factor prevalence for funding applications.

For example, in November 2004 the Department's Oral Health Program used the HEALTH Web Query System to obtain data for a successful grant application to implement

Table 1. Topics Currently Available on Rhode Island's HEALTH Web Query System – BRFSS

| | |
|-----------------------------|-----------------------|
| Alcohol Consumption | Asthma |
| Body Mass Index (BMI) | Cholesterol |
| Colorectal Cancer Screening | Demographics |
| Diabetes | Disability |
| Firearms | Fruits and Vegetables |
| General Health | Geography |
| HIV/AIDS | HIV/AIDS Beliefs |
| Health Care Access | Healthy People 2010 |
| Hypertension Awareness | Immunizations |
| Oral Health | Physical Activity |
| Prostate Cancer Screening | Seatbelts |
| Smoking | Weight Control |
| Women's Health | |

the *Providence Senior Smiles Project*, an oral health surveillance and health promotion/disease prevention project to be conducted at selected sites serving non-institutionalized elders in Providence. According to Dr. Deborah Fuller, Dentist Consultant, Office of Primary Care, “The system provided an instantaneous result which we incorporated into our grant application immediately. Using the system allowed us to access the data at our convenience (based on our timeline) using our program staff as opposed to requesting assistance from other offices (Health Statistics).”

Development Process

The development of this system has been supported by a Cooperative Agreement under the Assessment Initiative of the CDC. During the first year of the Agreement, project staff held several focus sessions with stakeholders, partners, and data users to assess interactive web-query systems for health data maintained by other states and by federal agencies. The goal of these sessions was to have an inclusive design process that maximized the utility and flexibility of the system implemented here. Based on the results of these sessions, the software program SAS IntraNet was selected to implement Rhode Island’s web-query system in October 2003. Initially, five years of RIBRFSS data were converted into the data format for the system; currently, seven years (1998-2004) of RIBRFSS data are accessible on the system.

In addition, during the first year of the project, project staff and the Office of Health Statistics jointly undertook a comprehensive review of the RIBRFSS using *Updated Guidelines for Evaluating Public Health Surveillance Systems: Recommendations from the Guidelines Working Group*,⁴ including a survey of RIBRFSS data users. This work is summarized in a report on the current needs of RIBRFSS users and recommendations for improving the RI-BRFSS.⁵ Progress towards these recommendations and improvements is reviewed yearly.

Table 2. How to access Rhode Island’s HEALTH Web Query System – BRFSS

| | |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Direct link to the system | http://www.health.ri.gov/webquery/index.html |
| Link to RI’s BRFSS page | http://www.health.ri.gov/chic/statistics/brfss.php |
| Sample query | http://www.health.ri.gov/webquery/Sample%20query.htm |

How to Access the System

Users can access the system through the HEALTH web site in two ways: directly at <http://www.health.ri.gov/webquery/index.html> or by navigating there from the RIBRFSS web page (<http://www.health.ri.gov/chic/statistics/brfss.php>). Instructions for use of the system, with graphics and examples of result interpretation, are provided on a sample query page (<http://www.health.ri.gov/webquery/Sample%20query.htm>). (Table 2.)

Annie Gjelsvik, PhD, is Project Coordinator of the Assessment Initiative Grant and Investigator, Department of Community Health, Brown Medical School.

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2. Rhode Island Department of Health. *A Healthier Rhode Island by 2010: A Plan for Action*. Providence, RI. May 2004. <http://www.health.ri.gov/hri2010/hri2010plan.pdf>
3. Centers for Disease Control and Prevention. Methodology of the Youth Risk Behavior Surveillance System. *MMWR* 2004;53(No. RR-12).
4. Centers for Disease Control and Prevention. Updated guidelines for evaluating public health surveillance systems: recommendations from the guidelines working group. *MMWR* 2001;50(No. RR-13).
5. A copy of this report is available from the author at annieg@doh.state.ri.us.

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